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EXAMINER

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/735,400  
Filing Date: December 11, 2003  
Appellant(s): HILLIS ET AL.

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Elizabeth Ruzich  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 6/16/2008 appealing from the Office action mailed 1/15/2008.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

5,404,305	Stiles, Jr.	4-1995
2002/0072410	Tanaka et al.	11-2005

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,404,305 to Stiles et al. (Stiles) in view of U.S. Patent Pub. No. 2002/0072410 to Tanaka et al. (Tanaka).

In Reference to Claims 1 and 11

Stiles discloses a means {method} for reducing control input sets to at least one reduced input set (Fig. 1 wherein pilot and co-pilot control stations' Yaw, Pitch, Roll, and Lift are reduced into one set of Yaw, Pitch, Roll and Lift commands Col. 3 Lines 47-67

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and Col. 4 Lines 1-17) according to a reduction scheme (Fig. 1 "dual station sidearm control system" 10 and Col. 3 Lines 47-49);

wherein each reduced control input set determines the action of a separate entity (Fig. 1 where signals are combined to determined the direction of a main and tail rotor); and

wherein controllers collectively control at least one entity ("it is possible for one pilot to override the other" Col. 1 Lines 25-26 or "are summed to provide a total system input signal" col. 2 Lines 18-20).

However, Stiles fails to teach of a videogame controller hub and method for reducing control input sets received from a plurality of video game controllers, each of said control input sets comprising a plurality of control inputs for an on-screen entity;

means for providing {providing} said at least one reduced control input set to a video game console;

Tanaka teaches of a video game ("video game machine" [0002]) controller hub and method (Fig. 3 "port duplicator" 303A; [0063]), comprising {comprising the steps of}:

means for receiving (Fig. 3 "connection slots" 304a - 304d; [0065]) a plurality of control input sets (Fig. 3 signals over "cables" 305a - 305d; [0065]) from a corresponding plurality of video game controllers (Fig. 3 "controllers" 20a-20c; [0064]), each of said control input sets comprising a plurality of control inputs ("It is to be noted that the matters controlled by the controller are not limited to game characters ..." [0006]) for an on-screen entity ("For a game to be enjoyed by a plurality of players

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through such individual operations of the controllers, it is necessary that correlation between the individual game characters appear on a television monitor [0004]);

means for providing said at least one reduced control input set to a video game console (Fig. 12 "monitor device" 100; [0163]);

wherein each reduced control input set determines an action of a separate on-screen entity said video game controllers collectively control at least one on-screen entity in order for the players to recognize which game characters are controlled by which game controller so that the game can be enjoyed by a plurality of players [0005].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the video game machine, controller hub and method as taught by Tanaka into the teachings of Stiles in order for the players to recognize which game characters are controlled by which game controller so that the game can be enjoyed by a plurality of players.

#### In Reference to Claims 2 and 12

Stiles discloses how the reduction scheme specifies a mapping of said control input sets onto said at least one reduced control input set (Figs. 1 and 2 and Col. 4 Lines 18-25 for the Yaw command and is "equally applicable to flight control Pitch, Roll and Lift axis modules." Col. 4 Lines 24-26).

In Reference to Claims 3 and 13

Stiles discloses a one to one mapping wherein said controller hub is functionally deactivated and said control input sets are provided unaltered to said video game console (Fig. 3 and "When the switch 230 is activated to the true or T position, the co-pilot yaw axis command on line 234 is first applied to the priority function 222 wherein the reduction in co-pilot authority is determined based on the magnitude of the pilot input." Col. 5 Lines 3-7). Further, if the hub is deactivated and the signals pass through unaltered, Stiles discloses known systems where the signals. "cancel each other out." (Col. 2 Line 24).

In Reference to Claims 4 and 14

Stiles discloses means for combining at least two of said at least one control input from said control input sets according to a combination scheme (Fig. 3 and Col. 4 Lines 48-67, Col. 5 Lines 1-67 and Col. 6 Lines 1-39).

In Reference to Claims 5 and 15

Stiles discloses a combination scheme that specifies at least one combination procedure applied to at least two of said at least one control input, each of which corresponds across said control input sets; said combination procedure producing a single control input within Said at least one reduced control input set (Fig. 3 and Col. 4 Lines 48-67, Col. 5 Lines 1-67 and Col. 6 Lines 1-39).

In Reference to Claims 6 and 16

Stiles discloses the controller wherein said at least one combination procedure is applied to corresponding control input sets in accordance with said reduction, scheme (Fig. 3 and Col. 4 Lines 18-26 and Lines 48-67, Col. 5 Lines 1-67 and Col. 6 Lines 1-39).

In Reference to Claims 7 and 17

Stiles discloses the controller wherein said at least one combination procedure is based upon a vote (Stiles discloses known systems wherein "one pilot can override the other" Col. 1 Lines 25-26), a selection ("The priority detector function determines the amount of priority given to a co-pilot yaw axis command signals in relation to pilot yaw axis command signals..." Col. 4 Lines 42-46), and an averaging calculation ("co-pilot controls are 'faded-in" or "washed-in" Col. 2 Lines 3-4).

In Reference to Claims 8 and 18

Stiles discloses a system substantially equivalent to applicant's claimed invention. However, Stiles fails to disclose wherein said on-screen entity comprises any of: a vehicle, a character, and a team.

Tanaka teaches of controlling on screen characters ([0004]) where the vehicle and team are obvious equivalents ("matters controlled by the controller are not limited to the game characters" [0006]) in order to provide a video game that can be enjoyed by a plurality of players ([0004]).



It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the on-screen entities as taught by Tanaka into the teachings of Stiles in order to provide a video game that can be enjoyed by a plurality of players.

In Reference to Claims 9, 10, 19, and 20

Stiles discloses said reduction scheme and combination scheme that are specified by a user of said video game console through a user interface (Stiles discloses a reduction and combination scheme whereby the "magnitude of the pilot input control signals is monitored" relative to a first and a second threshold value so as to attenuate the signal of the co-pilot controls (Col. 2 Lines 40-52 and Lines 67-68 and Col. 3 Lines 1-10; system performs the function of applying said magnitude of pilot input control to a YAW, Pitch, Roll, and Lift signals inherently, or any combination thereof through collective stick 26 in Fig. 1 ).

**(10) Response to Argument**

Applicant argues (Brief Pages 12-14) with respect to Claims 1 and 11 that neither Stiles nor Tanaka teach or suggest a means for providing a reduced control input set-that determines an action of a separate on-screen entity or collective control of such an entity. Examiner respectfully disagrees. Stiles discloses a reduced control input set and collective control ("it is possible for one pilot to override the other" Col. 1 Lines 25-26 or "are summed to provide a total system input signal" col. 2 Lines 18-20) to control

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main and tail rotors. Tanaka teaches of a video game controller hub to identify and control on-screen characters. In this way, players will know which on-screen characters they individually or collectively control. Using applicant's example in this situation, if two players controlled a racecar so that if one user commanded rapid acceleration and another user commanded no acceleration, the resulting acceleration would be moderate according to Stiles. The players would know which on-screen racecars they can individually and collectively control because each racecar is identified as taught by Tanaka. So, Stiles as Stiles discloses collective control of real aircraft one of ordinary skill in the art would reasonably see such features integrated into video games simulating aircraft. Tanaka teaches that in video games it is important for the players to be able to know which characters [005] or on-screen entities [0006] are under their control, or with in combination with Stiles, which identified on-screen entities are under shared control. It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the video game application of identifying the on-screen characters of Tanaka into the shared control system of Stiles in order for players to recognize which game players are collectively controlled by each game controller so that the game can be enjoyed by a plurality of players.

5. Applicant argues (Brief Pages 14) Examiner lacks motivation to combine the references. Examiner respectfully disagrees. It is well known that video games have a high degree of realism such that for game to provide truly authentic features as in the real world, one would reasonable look to e.g., a real aircraft. As such, Examiner reasonably believes the multiple entities and collective control of Stiles can be enjoyed

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by multiple players of a video game when the onscreen entity is identified according to Tanaka (i.e., an on-screen entity bearing more than one identifier indicating which controllers share control of the one on screen entity). One skilled in the art would not look at Tanaka as narrowly as what is disclosed but broadly for all that it teaches. In that light, Tanaka reasonably teaches knowing which controller is correlated with which on screen entity. If, for example, a racecar game has two drivers then Tanaka would ensure which controllers share driving control of the racecar.

6. Applicant argues (Brief Page 17) Examiner has not made an effort to resolve the level of ordinary skill in the art. Examiner respectfully disagrees. The level of ordinary skill in the art is demonstrated by the art of record.

#### **(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Paul A. D'Agostino/

Examiner, Art Unit 3714

Conferees:

/Robert E Pezzuto/

Art Unit: 3714

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